of clear sky; the average excess for January, 1895, is 5 per cent for photographic records, and 10 per cent for thermometric records. The details are shown in the following table:

Difference between instrumental and personal observations of sunshine for January, 1895.

Photographic stations.	Instrumental.	Personal.	Difference.	Thermometric stations.	Instrumental.	Personal.	Difference.
Denver, Colo	73	55	18	Key West, Fla	79	65	14
San Diego, Cal	66	58	8	New York, N. Y	66	38	28
Santa Fe, N. Mex	66	55	11	Vicksburg, Miss	66	50	16
Tucson, Ariz	66	50	16	Norfolk, Va	65	55	10
Kansas City, Mo	57	55	2	St. Louis, Mo	62	59	3
Bismarck, N. Dak	51	40	11	San Francisco, Cal	61	44	17
Dodge City, Kans	51	50	1	Des Moines, Iowa	58	52	6
Galveston, Tex	50	51	— 1	New Haven, Conn	57	50	7
Savannah, Ga	49	41	8	Baltimore, Md	54	44	10
Eastport, Me	44	36	8	Philadelphia, Pa	54	38	16
Cincinnati, Ohio	42	38	4	Portland, Me	53	45	8
Memphis, Tenn	40	40	0	Marquette, Mich	51	27	24
Washington, D. C	39	36	3	Wilmington, N. C	51	47	4
Helena, Mont	32	33	— 1	Boston, Mass	49	40	9
Cleveland, Ohio	24	26	— 2	Chicago, Ill	46	42	4
Spokane, Wash	24	18	6	Detroit, Mich	46	37	9
Portland, Oreg.*	13	25	—12	New Orleans, La	43	41	2
				Salt Lake City, Utah	43	20	23
				Atlanta, Ga	42	39	3
				Louisville, Ky	42	33	9
				Little Rock, Ark	37	29	8
				Columbus, Ohio	32	28	4
				Rochester, N. Y	32	28	4
				Buffalo, N. Y	29	20	9
				Seattle, Wash	26	18	8
				Portland, Oreg.*	23	25	— 2

The average excess for February, 1895, is 3 per cent for photographic records, and 12 per cent for thermometric records. The details are shown in the following table:

Difference between instrumental and personal observations of sunshine for February, 1895.

Photographic stations.	Instrumental.	Personal.	Difference.	Thermometric stations.	Instrumental.	Personal.	Difference.
Tucson, Ariz	78	64	14	Baltimore, Md	79	60	19
Santa Fe, N. Mex	74	62	12	New York, N. Y	79	51	28
San Diego, Cal	68	66	2	Boston, Mass	74	51	23
Washington, D. C	68	61	7	St. Louis, Mo	74	58	16
Cincinnati, Ohio	64	65	— 1	Detroit, Mich	72	54	18
Denver, Colo	62	51	11	New Haven, Conn	72	59	13
Dodge City, Kans	58	50	8	Norfolk, Va	71	70	1
Helena, Mont	57	54	3	San Francisco, Cal	69	62	7
Savannah, Ga	55	51	4	Chicago, Ill	67	59	8
Memphis, Tenn	54	53	1	Key West, Fla	67	49	18
Salt Lake City, Utah*	50	37	13	Marquette, Mich	67	33	34
Kansas City, Mo	48	45	3	Philadelphia, Pa	66	53	13
Eastport, Me	48	42	6	Portland, Me	64	46	18
Galveston, Tex	47	52	— 5	Des Moines, Iowa	62	39	23
Spokane, Wash	46	36	10	Atlanta, Ga	61	53	8
Bismarck, N. Dak	45	47	— 2	Louisville, Ky	57	51	6
Cleveland, Ohio	45	47	— 2	Columbus, Ohio	56	50	6
Portland, Oreg.*	26	37	—11	Wilmington, N. C	56	57	— 1
				Little Rock, Ark	54	41	13
				Salt Lake City, Utah*	54	37	17
				Buffalo, N. Y	47	30	17
				Rochester, N. Y	47	42	5
				Vicksburg, Miss	45	42	3
				Seattle, Wash	43	30	13
				New Orleans, La	41	40	1
				Portland, Oreg.*	38	37	1

*Records kept by both registers.

WIND.

The *prevailing winds* for February, 1895, viz, those that were recorded most frequently at Weather Bureau stations, are shown in Table I.

The *resultant winds*, as deduced from the personal observations made at 8 a. m. and 8 p. m., are given in Table IX. These latter resultants are also shown graphically on Chart II, in connection with the isobars based on the same system of simultaneous observation; the small figure attached to each arrow shows the number of hours that this resultant prevailed, on the assumption that each of the morning and evening observations represents one hour's duration of a wind of average velocity; these figures (or the ratio between them and the total number of observations in this month) indicate the extent to which winds from different directions counterbalanced each other.

Maximum wind velocities of 50 miles or more per hour were reported at regular stations of the Weather Bureau as follows (maximum velocities are averages for five minutes; extreme velocities are gusts of shorter duration, and are not given in this table):

Stations.	Date.	Velocity.	Direction.	Stations.	Date.	Velocity.	Direction.
		Miles				*Miles*	
Amarillo, Tex	6	56	n.	Detroit, Mich	20	60	sw.
Do	7	52	n.	Eastport, Me	8	72	e.
Block Island, R. I	7	60	e.	Hatteras, N. C	8	57	nw.
Do	8	66	w.	Do	9	50	nw.
Fort Canby, Wash	10	50	e.	Kittyhawk, N. C	8	56	nw.
Do	11	68	e.	Oklahoma, Okla	6	52	n.
Do	12	64	e.	Tatoosh Island, Wash.	10	58	e.
Do	15	73	se.	Titusville, Fla	15	72	e.
Do	16	71	se.	Woods Holl, Mass	5	57	nw.
Chicago, Ill	20	51	sw.	Do	8	70	sw.

No severe local storms were reported during February.

ATMOSPHERIC ELECTRICITY.

The statistics relative to auroras and thunderstorms are given in Table X, which shows the number of stations from which meteorological reports were received, and the number of such stations reporting thunderstorms (T) and auroras (A) in each State and on each day of the month, respectively.

The dates on which reports of thunderstorms for the whole country were most numerous were: 1st, 11; 2d, 6; 22d, 9; 25th, 11. Thunderstorms were most numerous in Colorado, California, and Louisiana. The dates of thunderstorm occurrence were most numerous in: Florida, eight days; Colorado and Texas, five days.

Auroras.—The evenings on which bright moonlight must have interfered with observations of faint auroras are assumed to be the four days preceding and following the date of full moon, viz, from the 5th to the 13th, inclusive. On the remaining nineteen days of this month 480 reports were received, or an average of about 25 per day. The dates on which the reported number especially exceeded this average were: 14th, 97; 15th, 139; 23d, 65.

Auroras were reported by a large percentage of observers in Minnesota, Maine, Michigan, Montana, New Hampshire, North Dakota, and Wisconsin.

The dates of auroras were most frequent in: New Hampshire, 13; Wisconsin, 12; Minnesota, Montana, and Ohio, 10; Massachusetts and North Dakota, 9; Iowa and South Dakota, 8.